

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Amended herein). A communication apparatus for transmitting packetized information, said information comprising a plurality of packets, each of said packets comprising data and a header, over a satellite link in a telecommunications system, said system comprising a client, selected from a plurality of potential clients, a server, selected from a plurality of potential servers, a first gateway[,] connected to said client by a first telecommunications link, a second gateway[,] connected to said server by a second telecommunications link, a third telecommunications link connecting said first gateway to said second gateway, said apparatus comprising:

a network interface for linking said first gateway with said client;

a satellite gateway interface;

a system memory; and

a bus interconnecting said network interface, said satellite gateway interface, and

said system memory with a processor, said processor operatively disposed to:

_____ intercept a connection with said server, said communication initiated by said client;

_____ establish a connection between said first gateway and said second gateway over said third telecommunications link;

_____ convert a flow of information received from the client from a first transport layer protocol to a second transport layer protocol prior to transmission over the third telecommunications link; and

_____ convert a return flow of information from the second transport layer protocol to the first transport layer protocol prior to transmission to the client;

_____ wherein converting the flow of information and converting the return flow of information [provide a bi-directional flow of information from said client to said server and from said server to said client using said connection between said first gateway and

said second gateway, wherein said providing a bi-directional flow] occurs transparently to said client and said server.

Please cancel claim 2.

3. (Amended herein) The apparatus of claim 1 [2] wherein the first transport layer protocol comprises TCP and said second transport layer protocol comprises XTP.

4. (Amended herein) The apparatus of claim 1 [2] wherein said second protocol is more suitable for transmission over a satellite link than using a TCP protocol.

5. (Amended herein) The apparatus of claim 1 [2] wherein said converting comprises removing said header to leave said data substantially intact.

6. (Amended herein) The apparatus of claim 1 [2] wherein said converting comprises removing said header to leave said data substantially intact and encapsulating said data using a satellite protocol header.

7. (As filed) The apparatus of claim 6 wherein said data is a portion of said flow of information.

8. (Amended herein) The apparatus of claim 1 wherein said processor is further operatively disposed to receive said flow of information by a gateway over said first telecommunications link.

9. (Amended herein) A communication apparatus comprising:
a TCP interface;
a satellite gateway interface;
a system memory;
a bus interconnecting said TCP interface, said satellite gateway interface and said system memory with a processor, said processor operatively disposed to:
_____ intercept a first communication connection between a client and a server;

_____ form a second communication connection between a first satellite gateway and a second satellite gateway that is over a satellite link;

_____ transmit information describing said first connection to said second satellite gateway; and

_____ form a third communication connection between said second satellite gateway and a destination server using said information describing said first connection wherein said forming said second connection and forming said third connection occur transparently to said client and said server;

_____ wherein the first, second and third communication connections define a 1:1:1 connection relationship.

10. (As filed) The apparatus of claim 9 wherein said information comprises a client address and a destination server address.

11. (As filed) The apparatus of claim 9 wherein said processor is further operatively disposed to transmit a response from said second satellite gateway to said first satellite gateway when said third communication connection with said destination server occurs.

12. (As filed) The apparatus of claim 9 wherein said processor is further operatively disposed to transmit a response from said first satellite gateway to said client when said third communication connection with said destination server occurs.

13. (As filed) The apparatus of claim 9 wherein said processor is further operatively disposed to transmit a failure response from said first satellite gateway to said client when said third communication connection is lost.

Please cancel claims 14-21.

Please add the following claims:

--22. A communication apparatus as in claim 9 wherein the end-to-end semantics are substantially maintained between the client and the server.

23. A communication apparatus comprising:
a system memory;
a processor;
at least one network interface; and
a bus interconnecting the system memory, the processor and the at least one network interface;
wherein the processor is operatively disposed to:
intercept a connection attempt initiated by a client in a first transport layer protocol, the connection attempt intended for a destination server;
establish a transport connection between a first gateway and a second gateway that is over a telecommunications link; and
form a communication connection between the second satellite gateway and the destination server;
wherein a bi-directional flow of information between the first and second gateways is in a second transport layer protocol.

24. The apparatus as in claim 23 wherein the communications between the client and the first gateway, between the first and second gateways, and between the second gateway and the server travel on a 1:1:1 connection relationship.

25. The apparatus as in claim 23 wherein the processor is further operatively disposed to extract an urgent pointer from a packet header in the first transport protocol, and incorporate the urgent pointer into a packet header in the second transport protocol for transmission over the telecommunications link between the first and second gateways.

26. The apparatus as in claim 23 further comprising a rate control module.--